

In the Claims

For the convenience of the Examiner, all pending claims are set forth below, whether or not an amendment is made. Please amend the claims as follows:

1. (Currently Amended) A system for transmitting a message in a communications network, the system comprising:

a signaling gateway operable ~~to~~ to:

receive a message directed to a destination circuit; and

execute one or more message transfer parts;

a plurality of voice gateways coupled to the signaling gateway, the voice gateways comprising a destination voice gateway coupled to the destination circuit, each message transfer part of the one or more message transfer parts being operable to direct the message to at least one of the voice gateways, at least one of the voice gateways being operable to execute an integrated services digital network user part; and

a plurality of circuits comprising the destination circuit, each circuit coupled to at least one of the voice gateways, the integrated services digital network user part of the at least one voice gateway being operable to provide signaling information to a circuit of the circuits, wherein the signaling gateway is being further operable to

establish the destination circuit from the message;

determine a circuit identifier identifying the destination circuit;

determine the destination voice gateway based on the circuit identifier identifying the destination circuit; and ~~to~~

send the message to the destination voice gateway.

2. (Original) The system of claim 1, wherein:

the destination voice gateway is associated with an Internet protocol address; and

the signaling gateway is operable to:

associate the destination circuit with the Internet protocol address; and

send the message to the destination voice gateway by using the Internet protocol address.

3. (Original) The system of claim 1, further comprising a hash table associating a circuit with a voice gateway coupled to the circuit, wherein the signaling gateway is operable to determine the destination voice gateway by using the hash table.

4. (Original) The system of claim 1, further comprising a hash table associating the signaling gateway with the destination circuit, wherein the signaling gateway is operable to determine that the message is at the appropriate signaling gateway by using the hash table.

5. (Canceled)

6. (Original) The system of claim 1, further comprising a message direction part operable to append a header to the message, the header comprising an address associated with the signaling gateway and a circuit identifier associated with the destination circuit.

7. (Original) The system of claim 6, wherein the header comprises a sender identifier identifying a sender of the message.

8. (Original) The system of claim 1, wherein the message comprises data information.

9. (Original) The system of claim 1, wherein the message comprises video information.

10. (Currently Amended) A method for transmitting a message in a communications network, the method comprising:

receiving a message at a signaling gateway coupled to a plurality of voice gateways, the message directed to a destination circuit of a plurality of circuits;

determining a destination voice gateway coupled to the destination circuit, the voice gateways comprising the destination voice gateway, the destination voice gateway determined by the signaling gateway by:

establishing the destination circuit from the message;

determining a circuit identifier identifying the destination circuit; and

determining the destination voice gateway based on the circuit identifier identifying the destination circuit;

executing, at the signaling gateway, a message transfer part of one or more message transfer parts, each message transfer part being operable to direct the message to at least one of the voice gateways; and

communicating the message to the destination voice gateway; and
executing, at the destination voice gateway, an integrated services digital network user part, the integrated services digital network user part operable to provide signaling information to the destination circuit.

11. (Original) The method of claim 10, further comprising:

associating the destination circuit with an Internet protocol address identifying the destination voice gateway; and

communicating the message to the destination voice gateway by using the Internet protocol address.

12. (Original) The method of claim 10, further comprising:

associating a circuit with a voice gateway using a hash table, the circuit coupled to the voice gateway; and

determining the destination voice gateway by using the hash table.

13. (Original) The method of claim 10, further comprising:
associating the signaling gateway with the destination circuit using a hash table; and
determining that the message is at the appropriate signaling gateway by using the
hash table.

14. (Canceled)

15. (Original) The method of claim 10, further comprising appending a header to
the message, the header comprising an address associated with the signaling gateway and a
circuit identifier associated with the destination circuit.

16. (Original) The method of claim 15, wherein the header comprises a sender
identifier identifying a sender of the message.

17. (Original) The method of claim 10, wherein the message comprises data
information.

18. (Original) The method of claim 10, wherein the message comprises video
information.

19. (Currently Amended) A signaling gateway for transmitting a message in a communications network, the signaling gateway comprising:

a signaling software stack operable to:

receive a message directed to a destination circuit of a plurality of circuits, and
determine a destination voice gateway operable to communicate the message to the destination circuit, the destination voice gateway one of a plurality of voice gateways coupled to the signaling gateway, at least one of the voice gateways being operable to execute an integrated services digital network user part, the integrated services digital network user part of the at least one voice gateway being operable to provide signaling information to a circuit of the circuits, the destination voice gateway determined by:

establishing the destination circuit from the message;

determining a circuit identifier identifying the destination circuit; and

determining the destination voice gateway based on the circuit identifier identifying the destination circuit;

one or more message transfer parts executable by the signaling gateway, each message transfer part of the one or more message transfer parts being operable to direct the message to at least one of the voice gateways; and

a message direction part operable to append a header to the message, the header comprising a voice gateway address identifying the destination voice gateway.

20. (Original) The signaling gateway of claim 19, wherein:

the destination voice gateway is associated with an Internet protocol address; and

the header comprises the Internet protocol address.

21. (Original) The signaling gateway of claim 19, further comprising a hash table associating a circuit with a voice gateway coupled to the circuit, wherein the signaling software stack is operable to determine the destination voice gateway by using the hash table.

22. (Original) The signaling gateway of claim 19, further comprising a hash table associating the signaling gateway with the destination circuit, wherein the signaling software stack is operable to determine that the message is at the appropriate signaling gateway by using the hash table.

23. (Original) The signaling gateway of claim 19, wherein the header comprises a circuit identifier associated with the destination circuit.

24. (Original) The signaling gateway of claim 19, wherein the header comprises a sender identifier identifying a sender of the message.

25. (Original) The signaling gateway of claim 19, wherein the message comprises data information.

26. (Original) The signaling gateway of claim 19, wherein the message comprises video information.

27. (Currently Amended) A system for transmitting a message in a communications network, the system comprising:

means for receiving a message at a signaling gateway coupled to a plurality of voice gateways, the message directed to a destination circuit of a plurality of circuits;

means for determining a destination voice gateway coupled to the destination circuit, the voice gateways comprising the destination voice gateway, the destination voice gateway determined by the signaling gateway by:

establishing the destination circuit from the message;

determining a circuit identifier identifying the destination circuit; and

determining the destination voice gateway based on the circuit identifier identifying the destination circuit; and

means for executing, at the signaling gateway, a message transfer part of one or more message transfer parts, each message transfer part being operable to direct the message to at least one of the voice gateways;

means for communicating the message to the destination voice gateway; and

means for executing, at the destination voice gateway, an integrated services digital network user part, the integrated services digital network user part operable to provide signaling information to the destination circuit.

28. (Original) The system of claim 27, further comprising:

means for associating the destination circuit with an Internet protocol address identifying the destination voice gateway; and

means for communicating the message to the destination voice gateway by using the Internet protocol address.

29. (Original) The system of claim 27, further comprising:

means for associating a circuit with a voice gateway using a hash table, the circuit coupled to the voice gateway; and

means for determining the destination voice gateway by using the hash table.

30. (Original) The system of claim 27, further comprising:
means for associating the signaling gateway with the destination circuit using a hash table; and
means for determining that the message is at the appropriate signaling gateway by using the hash table.

31. (Canceled)

32. (Original) The system of claim 27, further comprising means for appending a header to the message, the header comprising an address associated with the signaling gateway and a circuit identifier associated with the destination circuit.

33. (Original) The system of claim 32, wherein the header comprises a sender identifier identifying a sender of the message.

34. (Original) The system of claim 27, wherein the message comprises data information.

35. (Original) The system of claim 27, wherein the message comprises video information.

36. (Currently Amended) Signaling software embodied in a computer-readable medium and operable to perform the following:

receiving a message at a signaling gateway coupled to a plurality of voice gateways, the message directed to a destination circuit of a plurality of circuits;

determining a destination voice gateway coupled to the destination circuit, the voice gateways comprising the destination voice gateway, the destination voice gateway determined by the signaling gateway by:

establishing the destination circuit from the message;

determining a circuit identifier identifying the destination circuit; and

determining the destination voice gateway based on the circuit identifier identifying the destination circuit;

executing, at the signaling gateway, a message transfer part of one or more message transfer parts, each message transfer part being operable to direct the message to at least one of the voice gateways; and

communicating the message to the destination voice gateway gateway; and

executing, at the destination voice gateway, an integrated services digital network user part, the integrated services digital network user part operable to provide signaling information to the destination circuit.

37. (Original) The signaling software of claim 36, further operable to:

associate the destination circuit with an Internet protocol address identifying the destination voice gateway; and

communicate the message to the destination voice gateway by using the Internet protocol address.

38. (Original) The signaling software of claim 36, further operable to:

associate a circuit with a voice gateway using a hash table, the circuit coupled to the voice gateway; and

determine the destination voice gateway by using the hash table.

39. (Original) The signaling software of claim 36, further operable to:
associate the signaling gateway with the destination circuit using a hash table; and
determine that the message is at the appropriate signaling gateway by using the hash
table.

40. (Canceled)

41. (Original) The signaling software of claim 36, further operable to append a
header to the message, the header comprising an address associated with the signaling
gateway and a circuit identifier associated with the destination circuit.

42. (Original) The signaling software of claim 41, wherein the header comprises
a sender identifier identifying a sender of the message.

43. (Original) The signaling software of claim 36, wherein the message
comprises data information.

44. (Original) The signaling software of claim 36, wherein the message
comprises video information.

45. (Original) A system for transmitting a message in a communications network, the system comprising:

- a signaling gateway operable to receive a message directed to a destination circuit;

- a plurality of voice gateways coupled to the signaling gateway, the voice gateways comprising a destination voice gateway coupled to the destination circuit, the voice gateways operable to execute an integrated services digital network user part, the integrated services digital network user part operable to provide signaling information to a circuit; and

- a hash table associating the destination circuit with the destination voice gateway, the hash table associating the signaling gateway with the destination circuit;

- a plurality of circuits comprising the destination circuit, each circuit coupled to at least one of the voice gateways, wherein the signaling gateway is operable to:

- execute one or more message transfer parts, each message transfer part operable to direct the message to at least one of the voice gateways;

- determine the destination voice gateway by using the hash table;

- determine that the message is at the appropriate signaling gateway by using the hash table;

- associate the destination circuit with an Internet protocol address identifying the destination voice gateway;

- append a header to the message, the header comprising an address associated with the signaling gateway, a circuit identifier associated with the destination circuit, and a sender identifier identifying a sender of the message; and

- send the message to the destination voice gateway.